University Of Alberta
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TEACHER'S EDITION

BOOK I

CALCULATOR WORKBOOK

STARTING POINTS IN MATHEMATICS

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To the Teacher

This workbook provides classroom-tested calculator activities for children in grades 1 to 3. The following guideline is suggested.

grade	up to page
1	13
2	25
3	48

The activities have been developed for use with a four-function calculator with algebraic logic and an eight-digit display. The counting activities use an addition or subtraction constant. Check the capabilities of your calculator against this type of display for addition and subtraction constants.

key	display
C	0
1	1
8	18
+	18
1	1
=	19
=	20
=	21

key	display
C	0
2	2
5	25
−	25
1	1
=	24
=	23
=	22

key	display
C	0
6	6
0	60
+	60
5	5
=	65
=	70
=	75

The activities are designed to teach children how to use their calculators and how to apply this knowledge. Algorithms are presented to develop an understanding of the step-by-step approach to achieving the correct result.

Strand Organization

Topic	**Pages**
Numerals	3, 4, 5, 6, 8
Counting	7, 9, 10, 11, 12, 13, 14, 15, 16, 17
Adding	18, 20, 22, 23, 24, 25, 27, 28, 29, 31, 32, 33, 34, 36, 37, 41, 42, 43, 44
Subtracting	19, 21, 22, 24, 29, 30, 31, 32, 34, 37, 41, 43, 45
Problem Solving	22, 23, 24, 25, 26, 28, 29, 30, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 44, 45, 47
Comparing	25, 34, 42, 44
Place Value	26, 34, 38, 39, 45
Multiplying	35, 36, 37, 46, 47
Dividing	48
Decimals	43, 44, 45

CALCULATOR WORKBOOK

BOOK 1

TEACHER'S EDITION

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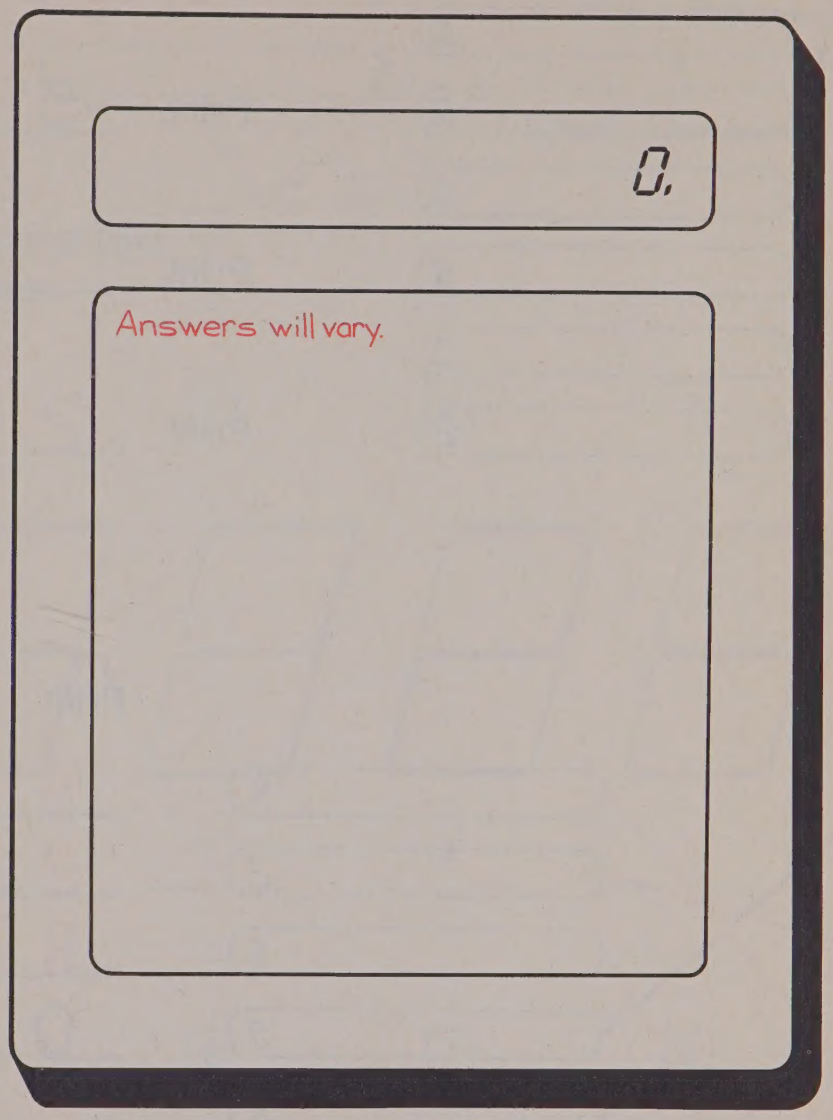
Your Calculator

Draw the keys on your calculator.



0	1	2	3	4	5	6	7	8	9
·	+	−	×	÷	=	ON	OFF	C	CE

Is your calculator ON or OFF? Answers will vary.
Always turn your calculator OFF when you have finished.

The location of keys depends upon the calculator. Your calculator may have some different keys.

Name Objective: Enter numbers from 0 to 9; read the display; print the numerals.

Your Calculator and Numerals

Press.

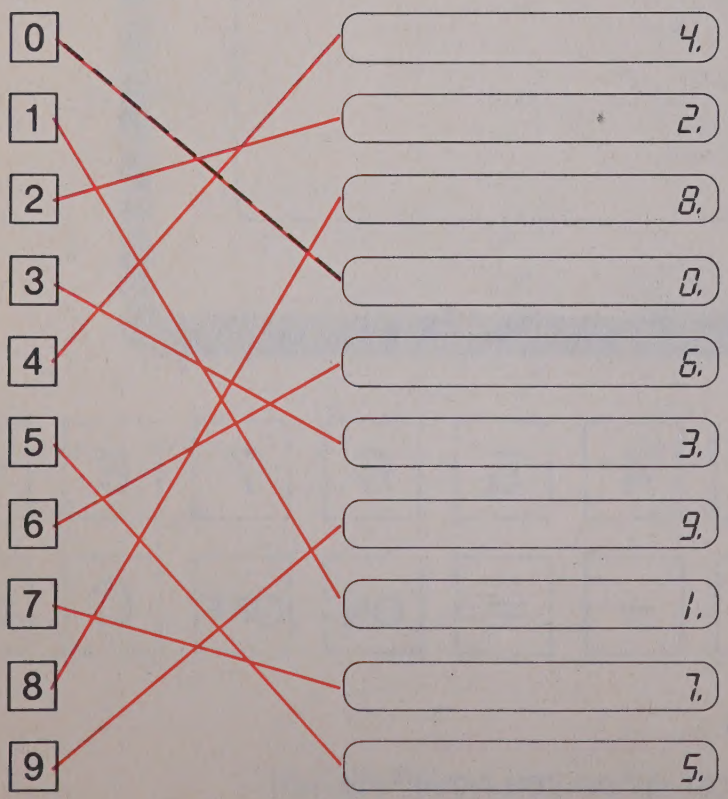
ON	0.
C	0.
5	5.
C	0.
8	8.
C	0.
2	2.

Print. 5

Print. 8

Print. 2

Match.



Print.

4

2

8

0

6

3

9

1

7

5

Make sure the children are printing the numerals in the way you are teaching them, not as they appear in the display. The presence of the decimal point may lead to discussion.

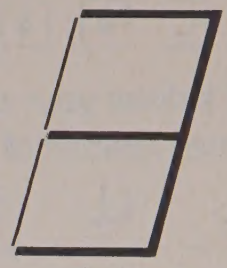
Name Objective: Relate the display numerals to printed numerals. 5

Your Calculator Display

Press. ON → 0.

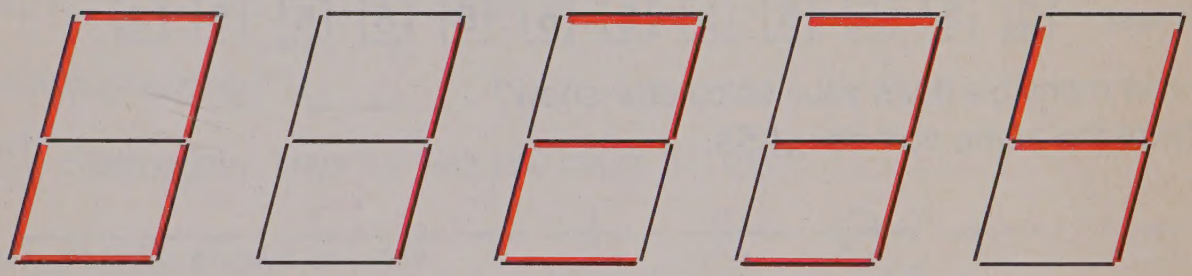
C → 0.

3 → 3.

Color. 

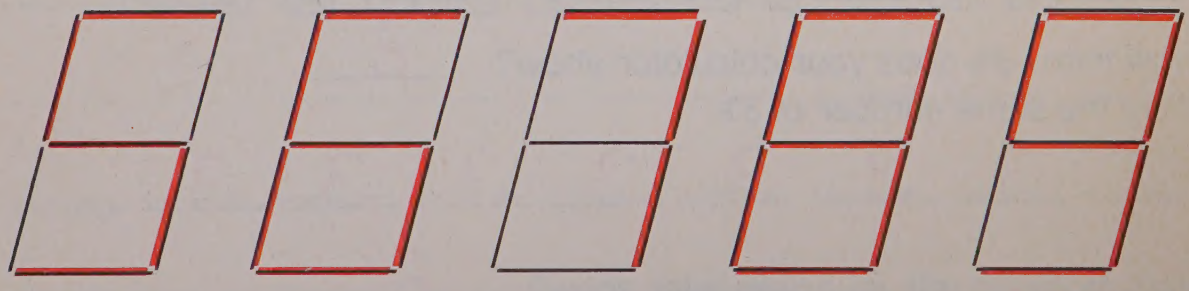
Color the dashes of light.
Print the numeral.

0 1 2 3 4

Color. 

Print. 0 1 2 3 4

5 6 7 8 9

Color. 

Print. 5 6 7 8 9

Compare the display numerals with respect to the number of (and the location of) dashes of light. Ask which numeral has the most dashes (8) and which has the least (1).

OFF

Name Objective: Determine the length of the calculator display; print numerals.

How Many Numerals?

Press. ON C 4 4 4 4 4 4 4 4 4 4

How many 4's does your calculator show? 8

Print the same number of 4's.

4 4 4 4 4 4 4 4 ____ ____

Press. C 2 2 2 2 2 2 2 2 2 2

How many 2's does your calculator show? 8

Print the same number of 2's.

2 2 2 2 2 2 2 2 ____ ____

Press. C 5 5 5 5 5 5 5 5 5 5

How many 5's does your calculator show? 8

Print the same number of 5's.

5 5 5 5 5 5 5 5 ____ ____

Press. C 9 9 9 9 9 9 9 9 9 9

How many 9's does your calculator show? 8

Print the same number of 9's.

9 9 9 9 9 9 9 9 ____ ____

Press. C 3 3 3 3 3 3 3 3 3 3

How many 3's does your calculator show? 8

Print the same number of 3's.

3 3 3 3 3 3 3 3 ____ ____

How many 0's will your calculator show? 8

How many 7's will your calculator show? 8

Most calculators have an eight-digit display.

OFF

Name Objective: Count by ones, using a calculator; print numerals. 7

Counting with Your Calculator

Press. [ON] 0.

[C] 0.

[0] 0.

[+] 0.

[1] 1.

[=] 1.

[=] 2.

[=] 3.

Keep pressing [=].

Press [C]. Start again. How far can you count in 1 min? Answers will vary.

Print the numerals shown in 1 min. 1 2 3 Answers will vary.

This method uses the addition constant. Using the method shown, the [=] key is pressed ten times to count to ten.

OFF

Name Objective: Enter and read two-digit numbers. 8

Two-Digit Numbers

To enter 15 :

ON	0.
C	0.
1	1.
5	15.

To enter 40 :

C	0.
4	4.
0	40.

Enter. Then print the numeral shown.

C	C	C	C
2	3	4	5
6 26	9 39	7 47	5 55
C	C	C	C
1	3	7	4
9 19	0 30	2 72	6 46

Show the keys to press.

18	25	38	62
C	C	C	C
1	2	3	6
8	5	8	2

With two-digit numbers there is no longer a one-to-one correspondence between the number of keys pressed and the numeral. The order in which the keys are pressed is the same as the order in which the digits are read, left to right.

OFF

Counting from Any Number

To enter 19:

ON	0.
C	0.
1	1.
9	19.

To count from 19 to 30:

+	19.
1	1.
=	20.
=	21.
=	22.
=	23.

Keep pressing = .

Print the numerals shown.

19 20 21 22 23 24

25 26 27 28 29 30

Enter 35. Count to 50.

Enter 41. Count to 55.

Enter 50. Count to 66.

Enter 62. Count to 75.

Enter 77. Count to 100.

The method shown uses the addition constant.
Some children may benefit from counting beyond 100.

Name Objective: Count by tens, using a calculator. 10

Counting by Tens

Press.		
	ON	0.
	C	0.
	0	0.
	+	0.
10	1	1.
	0	10.
	=	10.
	=	20.
	=	30.

Keep pressing =.

Count by 10's to 300.

Press C. Start counting by 10's again.
This time print the numerals shown.

10	20	30	40	50	60	70
80	90	100	110	120	130	140
150	160	170	180	190	200	210
220	230	240	250	260	270	280
290	300					

The addition constant used here is ten. Every time the = key is pressed, ten is added.

OFF

Counting by Twos

Press. [ON] 0.

[C] 0.

[0] 0.

[+] 0.

[2] 2.

[=] 2.

[=] 4.

[=] 6.

Keep pressing [=].

These are the **even numbers**.

Count the ears on the rabbits.

Press. [C] [0] [+] [2] [=] [=] [=] [=] [=] [=]

The addition constant used here is two. Every time the [=] key is pressed, two is added. Have children count other things that come in pairs (for example, eyes in the classroom).

Counting to 100

To count by 1's to 100:

Press. [ON] 0.

[C] 0.

[0] 0.

[+] 0.

[1] 1.

[=] 1.

[=] 2.

[=] 3.

Keep pressing [=].

About how long does it take? (1 min) 2 min 5 min 10 min

To count by 2's to 100:

Press. [C] 0.

[0] 0.

[+] 0.

[2] 2.

[=] 2.

[=] 4.

Keep pressing [=].

Which is faster counting to 100? by 1's (by 2's)

Count by 4's to 100. Count by 5's to 100.

The addition constant is used each time. Some students may benefit from counting beyond 100 or by counting by other numbers as well.

Counting Odd Numbers

Press. [ON] 0.

[C] 0.

[1] 1.

[+] 1.

[2] 2.

[=] 3.

[=] 5.

Keep pressing [=].

These are the **odd numbers**.

Circle the odd numbers.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

What are the other numbers called? even numbers

Again, the addition constant is used. Although a two appears in the display, children should recognize that it does not fit into the pattern of odd numbers.

[OFF]

Name Objective: Count backwards from a given number by ones, using a calculator; print numerals.

Counting Backwards

To enter 23:

ON	0.
C	0.
2	2.
3	23.

To count backwards to 0:

−	23.
1	1.
=	22.
=	21.
=	20.

Keep pressing =.

Print the numerals shown.

23	22	21	20	19	18
17	16	15	14	13	12
11	10	9	8	7	6
5	4	3	2	1	0

Enter 50. Count backwards to 0.

Enter 62. Count backwards.

Enter 84. Count backwards.

Enter 100. Count backwards.

This method uses the subtraction constant. Using the method shown, the = key is pressed ten times to count from ten to zero. Some children will count beyond zero and this may lead to a discussion of negative numbers.

OFF

Counting Backwards by Twos

To enter 18:

[ON]	0.
[C]	0.
[1]	1.
[8]	18.

To count backwards by 2's to 0:

[−]	18.
[2]	2.
[=]	16.
[=]	14.

Keep pressing [=].

Enter 24. Count backwards by 2's to 0.

Enter 32. Count backwards by 2's to 0.

Peanuts cost 2¢.
You have 12¢.

Enter 12. Count backwards by 2's to 0.
Complete.

How many peanuts can you buy? 6

The subtraction constant used is two. This method leads to using repeated subtraction as an introduction to division.

Name Objective: Count backwards by tens from a given number, using a calculator.

Counting Backwards by Tens

To enter 120:

[ON] [C] [1] [2] [0]

To count backwards by 10's:

[−] [1] [0] [=] [=] [=] Keep pressing [=] .

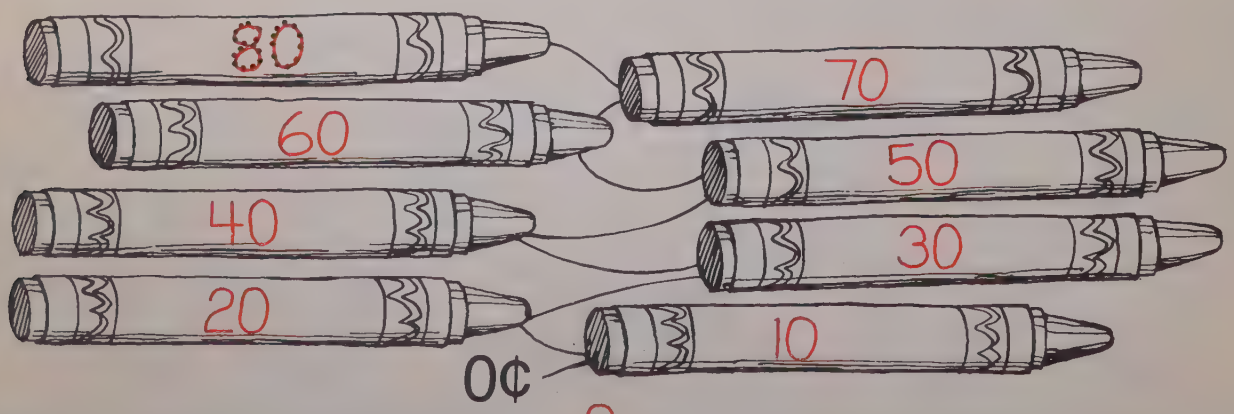
Bananas cost 10¢.
You have 50¢.

Enter 50. Count backwards by 10's to 0.
Complete.

How many bananas can you buy? 5

Crayons cost 10¢.
You have 80¢.

Enter 80. Count backwards by 10's to 0.
Complete.



How many crayons can you buy? 8

The subtraction constant used is ten. The number of times the [=] key is pressed is the number of items that can be bought.

[OFF]

Counting Backwards by Fives

To enter 35:

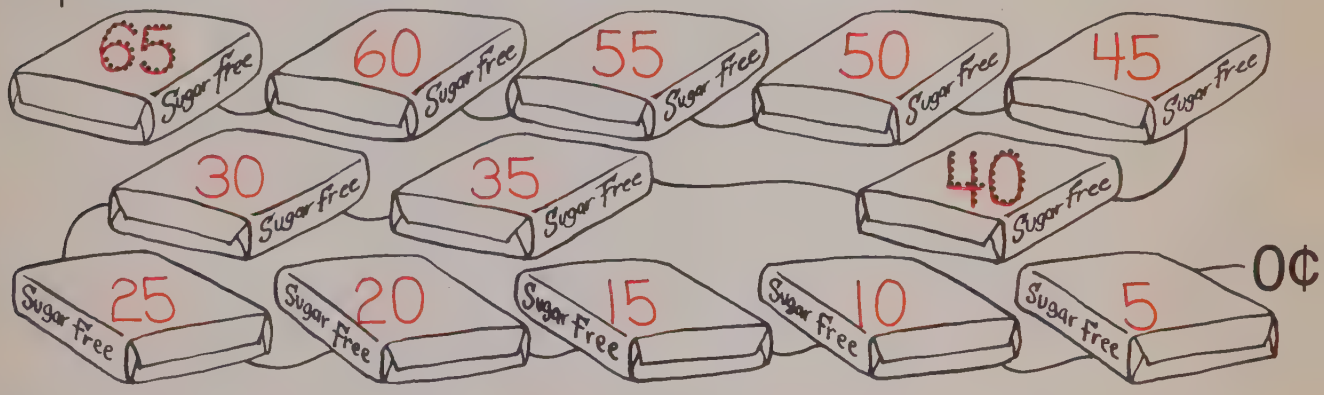
ON C 3 5

To count backwards by 5's to 0:

– 5 = = = Keep pressing = .

Gum costs 5¢.
You have 65¢.

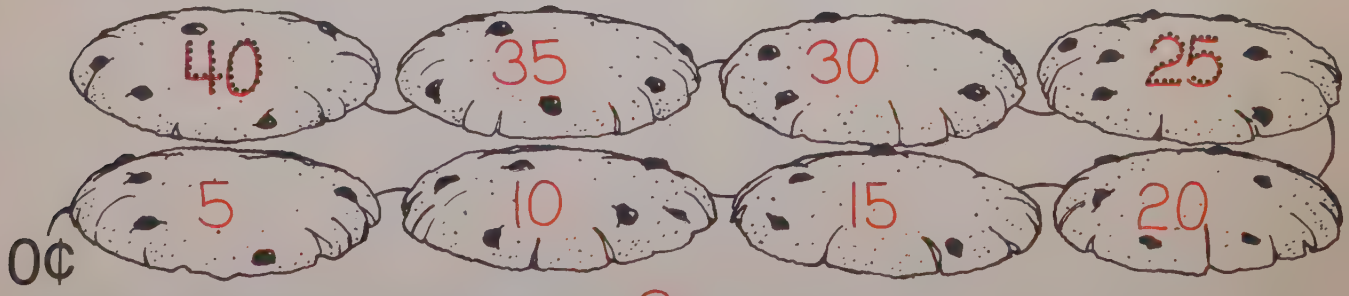
Enter 65. Count backwards by 5's to 0.
Complete.



How much gum can you buy? 13

Cookies cost 5¢.
You have 40¢.

Enter 40. Count backwards by 5's to 0.
Complete.



How many cookies can you buy? 8

The subtraction constant used is five. Have the children compare the number of times the = key is pressed and the number of items that can be bought.

OFF

Adding with Your Calculator

3 kittens are playing.
4 more come.
How many are there now?

To calculate 3 + 4:

ON	0.
C	0.
3	3.
+	3.
4	4.
=	7.

There are 7 kittens.

Add.

1. C 2 + 7 = 9

2. C 5 + 5 = 10

3. C 6 + 1 = 7

4. C 9 + 5 = 14

5. C 3 + 8 = 11

6. C 9 + 9 = 18

7. C 0 + 6 = 6

8. C 5 + 3 = 8

9. $\begin{array}{r} 2 \\ +\ 5 \\ \hline 7 \end{array}$

10. $\begin{array}{r} 7 \\ +\ 1 \\ \hline 8 \end{array}$

11. $\begin{array}{r} 5 \\ +\ 6 \\ \hline 11 \end{array}$

12. $\begin{array}{r} 8 \\ +\ 7 \\ \hline 15 \end{array}$

13. 9 + 8 = 17

14. 4 + 6 = 10

The children should verify that they are pressing the keys correctly by seeing whether or not their results are what they would have expected.

OFF

Subtracting with Your Calculator

8 puppies are playing.
3 go away.
How many are left?

To calculate 8 − 3:

ON	0.
C	0.
8	8.
−	8.
3	3.
=	5.

There are 5 puppies left.

Subtract.

1. C 7 − 2 = 5

2. C 9 − 3 = 6

3. C 8 − 8 = 0

4. C 5 − 4 = 1

5. C 9 − 7 = 2

6. C 6 − 5 = 1

7. C 4 − 2 = 2

8. C 5 − 1 = 4

9. $\begin{array}{r} 8 \\ -\ 6 \\ \hline 2 \end{array}$

10. $\begin{array}{r} 7 \\ -\ 3 \\ \hline 4 \end{array}$

11. $\begin{array}{r} 9 \\ -\ 2 \\ \hline 7 \end{array}$

12. $\begin{array}{r} 5 \\ -\ 3 \\ \hline 2 \end{array}$

13. 9 − 1 = 8

14. 6 − 3 = 3

As with adding, the children should verify their work by considering whether or not they are reaching expected results.

Adding Two-Digit Numbers

There are 26 geese and 13 ducks. How many birds are there in all?

To calculate 26 + 13:

ON	0.
C	0.
2	2.
6	26.
+	26.
1	1.
3	13.
=	39.

26

13

There are 39 birds in all.

Show the keys to press.
Then add.

1. 57 + 28	C	5	7	+	2	8	=	85
2. 45 + 25	C	4	5	+	2	5	=	70
3. 23 + 42	C	2	3	+	4	2	=	65

Add.

4. 15 + 38 = 53

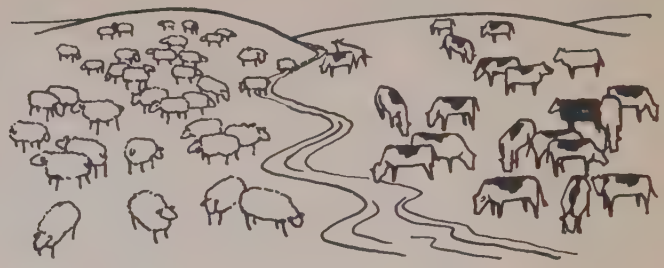
5. 30 + 55 = 85

6. 21 + 67 = 88

7. 43 + 49 = 92

Children should check the reasonableness of their results by estimating the sums.

Subtracting Two-Digit Numbers



There are 75 sheep and 36 cows. How many more sheep than cows are there?

To calculate 75 – 36:

ON	0.
C	0.
7	7.
5	75.
–	75.
3	3.
6	36.
=	39.

75

36

There are 39 more sheep than cows.

Show the keys to press.
Then subtract.

1. 84 – 59	C	8	4	–	5	9	=	25
2. 93 – 75	C	9	3	–	7	5	=	18
3. 69 – 37	C	6	9	–	3	7	=	32

Subtract.

4. 97 – 79 = 18

5. 38 – 24 = 14

6. 54 – 39 = 15

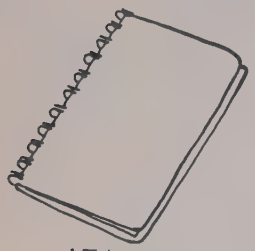
7. 61 – 29 = 32

As with adding, the children should check the reasonableness of their results by estimating the difference.

OFF

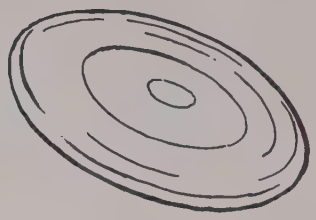
Name Objective: Determine whether to add or subtract; add and subtract amounts of money to 99¢, using a calculator. 22

School-Fair Math



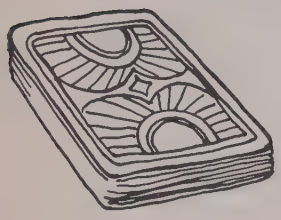
15¢

24¢

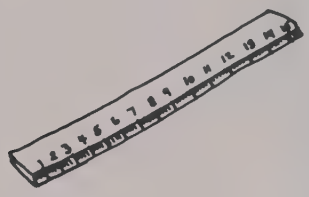


18¢

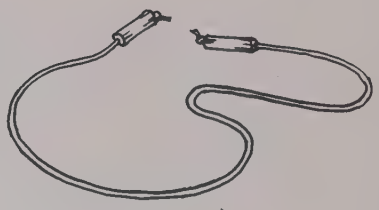
22¢



28¢



9¢



33¢

64¢

1. I have 50¢.
I buy
I have 26 ¢ left.

2. I buy
and
I spend 33 ¢.

3. I have 50¢.
I buy
I have 17 ¢ left.

4. I buy
and
I spend 37 ¢.

5. I buy
and
I spend 37 ¢.

6. I have 75¢.
I buy
I have 11 ¢ left.

7. I have 75¢.
I buy
I have 47 ¢ left.

8. I buy
and
I spend 86 ¢.

There is no need to use $ notation for this activity; no amount exceeds 99¢.

OFF

Name Numbers

Complete.

A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

1. Use the chart and your calculator to help Andrea find her name number.

	A		N		D		R		E		A		
Enter.	1	+	14	+	4	+	18	+	5	+	1	=	43

2. Print your first name. Answers will vary for Ex. 2, 3 and 4.
Find your name number.

My name number is _____ .

3. Print a friend's name. _____
Find your friend's name number.

My friend's name number is _____ .

4. Whose name number is greater, yours or your friend's? _____

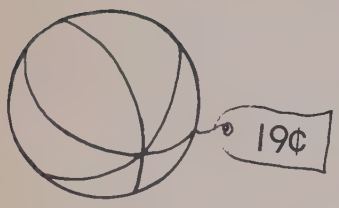
5. Arnold, Harry, David, and Ronald are friends.
Guess the answers to these questions.
Use your calculator to check.

Which friends have the same numbers? Arnold, Ronald

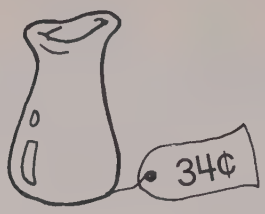
Who has the greatest name number? Harry

The partially-worked example for Andrea's name shows how to add more than two numbers, using a calculator. Name numbers will be affected by the number of letters in a name and their position in the alphabet.

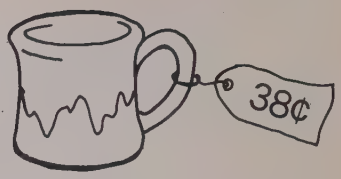
Yard-Sale Math



beach ball



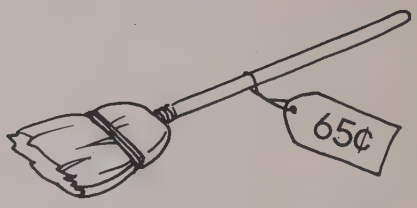
vase



mug

flower

scissors



broom

record

catcher's mitt

dustpan

1. How much do a beach ball and a catcher's mitt cost?

   66¢

2. How much do a broom and a dustpan cost?

   98¢

3. How much more does a flower cost than a vase?

   48¢

4. How much less does a beach ball cost than scissors?

   25¢

5. How much do a mug and scissors cost?

   82¢

6. How much more does a broom cost than a vase?

   31¢

7. How much do a mug and a record cost?

   93¢

8. How much less does a beach ball cost than a flower?

   63¢

The name of each item is given with its picture to help solve the word problems.

OFF

Comparing Numbers

Circle the greater number in each pair.
Then add the three circled numbers.

1. 19 (77) 60
   (91) 74 (66) 234

2. (75) (43) 18
   57 29 (61) 179

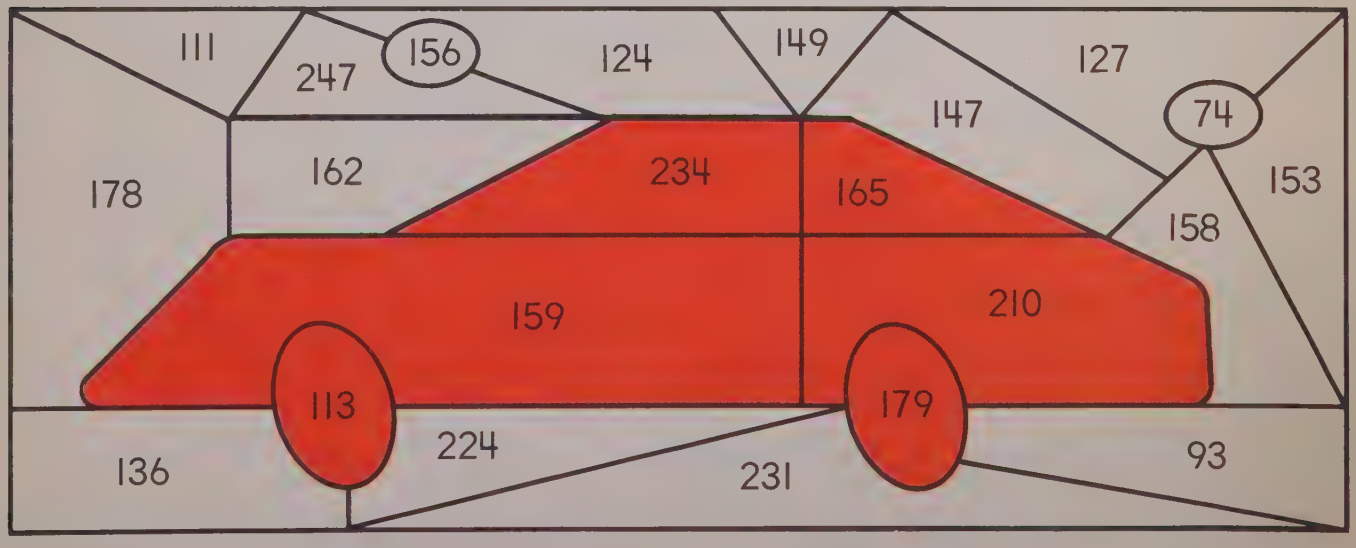
3. (47) 29 17
   44 (92) (26) 165

4. 26 37 (11)
   (29) (73) 9 113

5. 50 49 28
   (78) (50) (82) 210

6. 20 39 (90)
   (29) (40) 89 159

Color the shapes that have the same numbers as your sums.



Some children may find it helpful to print plus signs between the numbers and an equal sign at the end.

Name Objective: Interpret place value for numbers to 999. 26

Place-Value Code

To enter 526

[+] 3 hundreds:

[ON] [C] [5] [2] [6] [+] [3] [0] [0] [=]

826.

526 3 hundreds

---

1. Enter. 24

[+] 5 tens

[=] 74 A

2. Enter. 135

[−] 7 tens

[=] 65 C

3. Enter. 492

[+] 3 hundreds

[=] 792 L

4. Enter. 168

[−] 9 tens

[=] 78 O

5. Enter. 206

[−] 8 ones

[=] 198 R

6. Enter. 795

[−] 4 hundreds

[=] 395 T

7. Enter. 49

[+] 17 tens

[=] 219 U

8. Enter. 219

[−] 12 tens

[=] 99 !

Print the letter below its number.

65	74	792	65	219	792	74	395	78	198	99
C	A	L	C	U	L	A	T	O	R	!

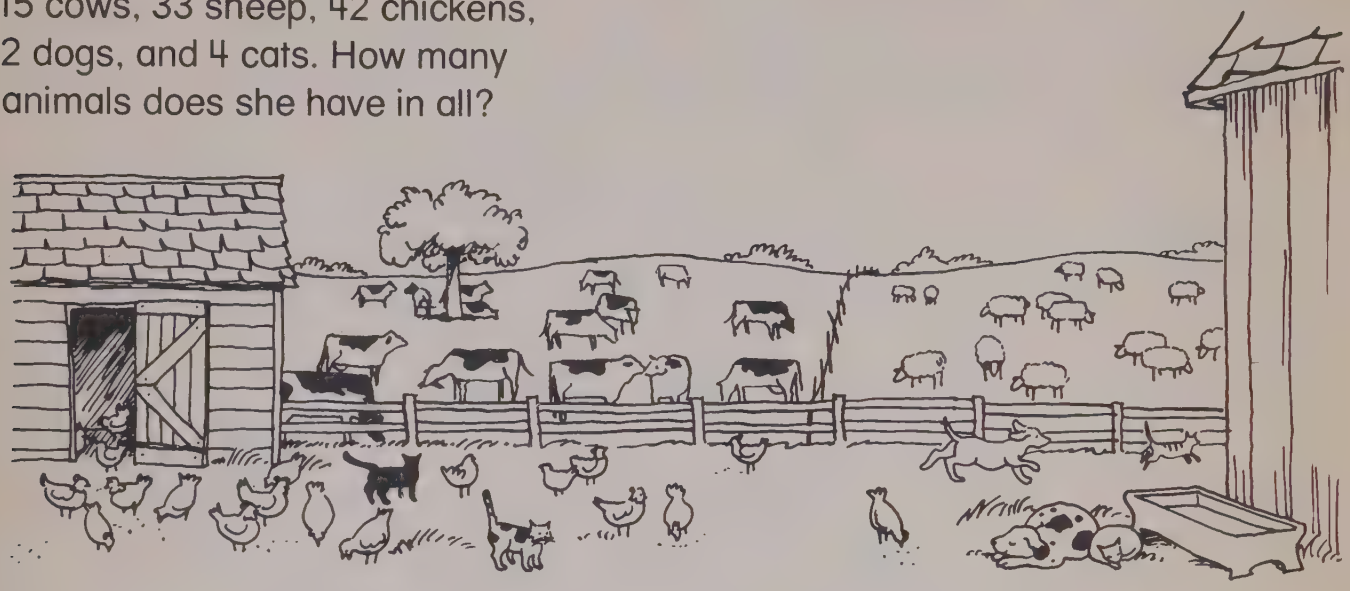
What did you spell? CALCULATOR!

The example reviews entering three-digit numbers and translating 3 hundreds to 300.

OFF

Adding Several Numbers

Farmer Starks has 15 cows, 33 sheep, 42 chickens, 2 dogs, and 4 cats. How many animals does she have in all?



To add 15 + 33 + 42 + 2 + 4:

ON	C	1	5	+	3	3	+	4	2	+	2	+	4	=
		15			33			42			2		4	

96.

She has 96 animals.

Add.

1. 14 + 23 + 8 = 45

2. 49 + 21 + 55 = 125

3. 5 + 29 + 13 + 7 = 54

4. 24 + 62 + 8 + 75 = 169

5. 13 + 29 + 42 + 25 + 18 = 127

6. 2 + 9 + 15 + 22 + 13 = 61

7. 5 + 11 + 14 + 17 = 47

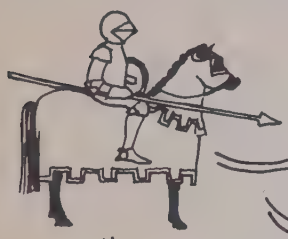
8. 23 + 11 + 26 + 31 + 19 = 110

9. 1 + 9 + 2 + 8 + 3 + 7 = 30

The children should check the reasonableness of their results by estimating the sums.

Dragon Math

Add the numbers on each path.
If the sum is greater than the dragon's number, the knight slays the dragon.
How many dragons does the knight slay?

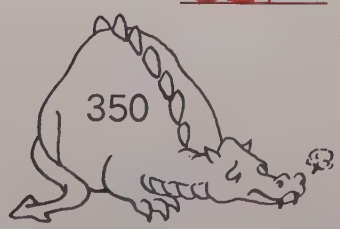


42 65 17 33 = 157

66 73 21 49 = 209

14 25 19 37 62 21 = 178

19 62 14 27 88 92 25 = 327

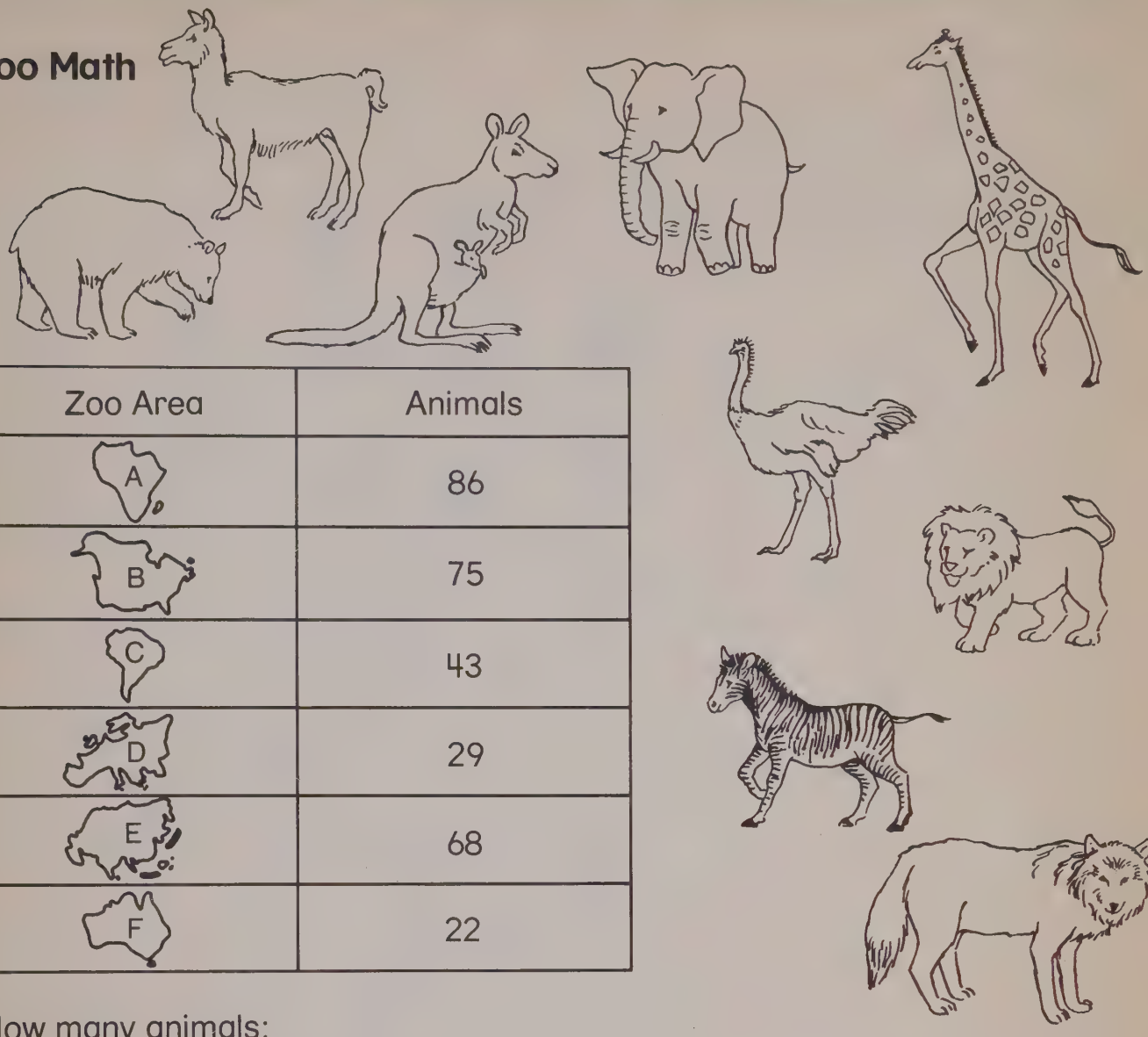


42 38 69 71 58 32 26 65 = 401

The knight slays 4 dragons.

Some children may find it helpful to print a plus sign between each pair of numbers.

Zoo Math



Zoo Area	Animals
A	86
B	75
C	43
D	29
E	68
F	22

How many animals:

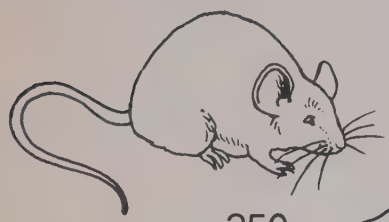
1. in Area A and Area F?
   108
2. more in Area B than Area C?
   32
3. in Area D, E, and F?
   119
4. less in Area D than Area E?
   39
5. more in Area A than Area C?
   43
6. in Area B and Area C?
   118
7. less in Area D than Area B?
   46
8. in all?
   323

The zoo areas are continents. The children may enjoy identifying the area for each animal illustrated.

Name Objective: Subtract several two-digit numbers from a given number, using a calculator. 30

Mouse Math

Subtract the numbers on each path.
If you reach 0, the mouse eats the cheese.
How many pieces of cheese does the mouse eat?



250
86
27
51
86
= 0

250
17
23
55
74
31
50
= 0

250
26
34
12
45
62
19
26
= 26

250
50
50
50
50
50
= 0

250
77
52
35
63
= 23

The mouse eats 3 pieces of cheese.

Some children may find it helpful to print a minus sign between each pair of numbers.

OFF

Money and Your Calculator

Complete.

37¢ or $0.37

45 ¢ or $0.45

66 ¢ or $0.66

Jessie has 36¢. Bret has 75¢.
How much do they have in all?

To calculate 36¢ + 75¢:

$0.36 + $0.75

ON C 0 . 3 6 + 0 . 7 5 = 1.11

They have $1.11 in all.

Add or subtract.

1. 55¢ + 27¢ = $0.82

2. 96¢ − 35¢ = $0.61

3. 14¢ + 89¢ = $1.03

4. 39¢ + 65¢ = $1.04

5. $1.12 + 0.42 = $1.54

6. $2.41 − 1.82 = $0.59

7. $1.99 − 0.63 = $1.36

8. $1.65 + 0.84 = $2.49

9. 77¢ − 28¢ = $0.49

10. 94¢ + 26¢ = $1.20

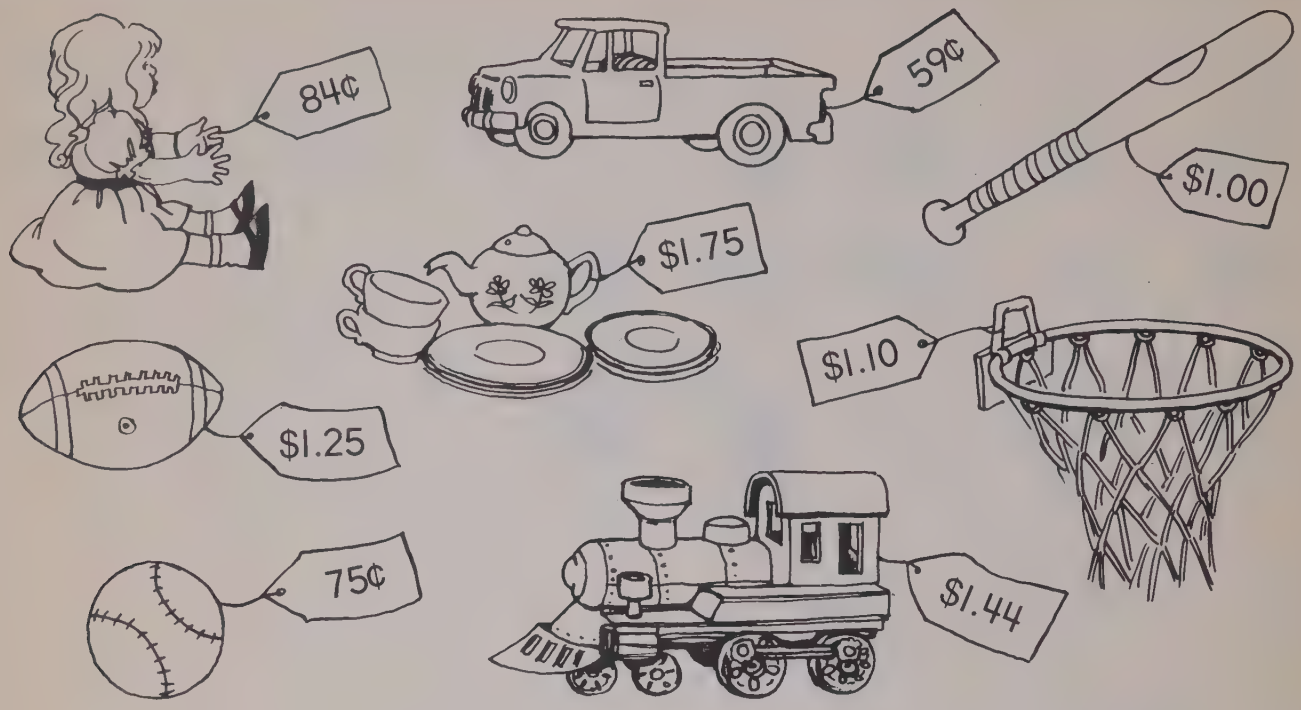
11. $1.98 + 0.33 = $2.31

12. 79¢ + 65¢ = $1.44

The children should check the reasonableness of their results by estimating the sums and differences.

Name _____ Objective: Determine whether to add or subtract; add and subtract amounts of money, using a calculator and the decimal point.

Flea-Market Math



1. How much more does the football cost than the softball?

   $0.50

2. How much more does the set of dishes cost than the doll?

   $0.91

3. How much do the bat and the softball cost?

   $1.75

4. How much do the train engine and the football cost?

   $2.69

5. How much less does the truck cost than the doll?

   $0.25

6. How much do the doll and the football cost?

   $2.09

7. How much less does the truck cost than the train engine?

   $0.85

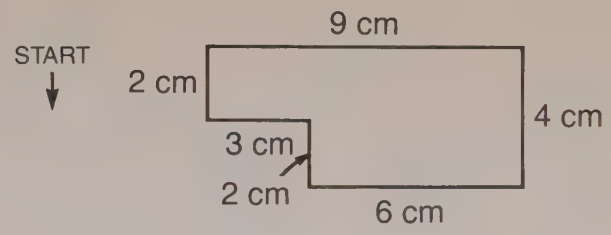
8. Can you buy the basketball hoop and the doll with $2.00?

   yes

The children should express amounts using a decimal point.

Perimeter

To find the distance around this shape:



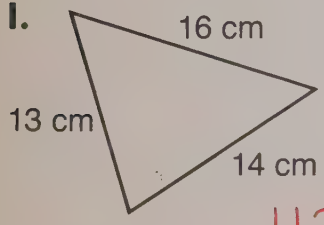
ON C 2 + 3 + 2 + 6 + 4 + 9 =

26.

The distance around or **perimeter** is 26 cm.

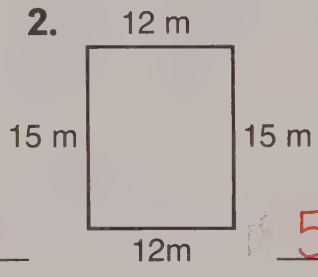
Find the perimeter of each shape.

1.



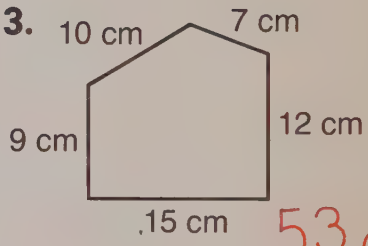
43 cm

2.



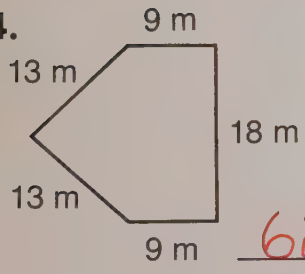
54 m

3.



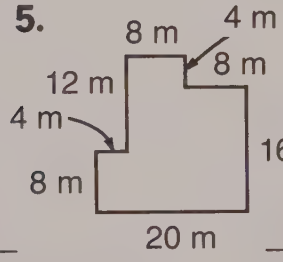
53 cm

4.



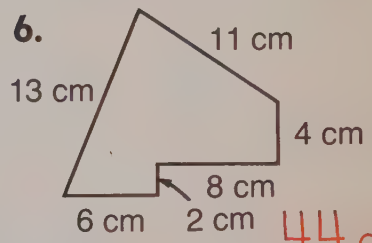
62 m

5.



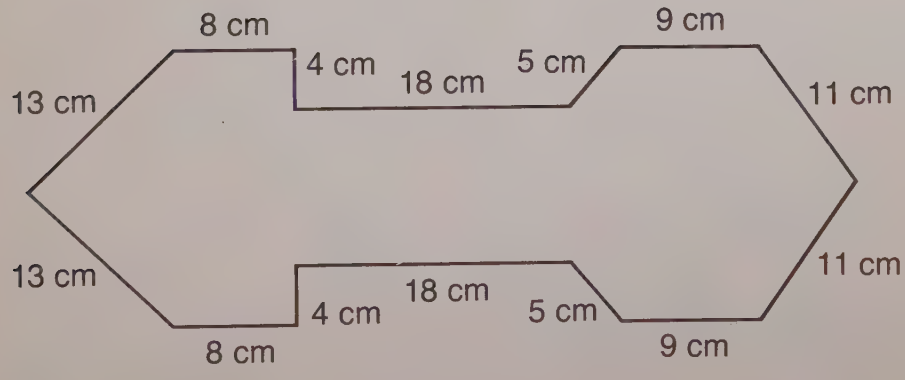
80 m

6.



44 cm

7.



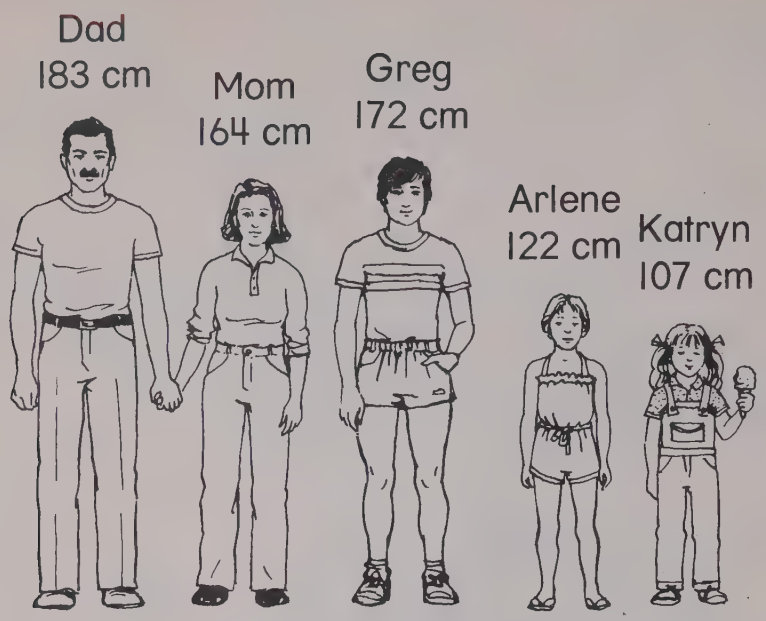
136 cm

The children should include the units in their results.

Name _____

Objective: Determine whether to add or subtract; add and subtract centimetres and kilograms, using a calculator; compare quantities.

Measurement



1. How much taller is Greg than Katryn? 65 cm

2. What is the mass of Mom and Dad together? 131 kg

3. Suppose the family lay head-to-foot in a line. Find the length. 748 cm

4. A small elevator will hold 500 kg. Can the family all get in at one time? yes

5. To go on some midway rides you must be less than 61 cm tall. Who in the family can go on these rides? no one in the family

6. To go on other midway rides you must be greater than 110 cm tall. Who can go on these rides? Dad, Mom, Greg, Arlene

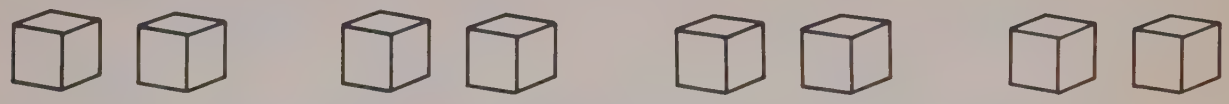
7. Who has the greater mass: Mom, or Arlene and Katryn together? Mom

8. Who has the greater height: Dad and Katryn together, or Mom and Arlene together? Dad and Katryn

The children must be able to distinguish which measurements are heights and which are masses of the family members.

Multiplying with Your Calculator

Count by 2's.



4 groups of 2 blocks gives 8 blocks.

To calculate 4 × 2:

ON	0.
C	0.
4	4.
×	4.
2	2.
=	8.

Multiply.

1. C 5 × 7 = 35

2. C 3 × 6 = 18

3. C 9 × 4 = 36

4. C 8 × 3 = 24

5. C 6 × 6 = 36

6. C 2 × 9 = 18

7. C 3 × 7 = 21

8. C 4 × 4 = 16

9. $\begin{array}{r} 9 \\ \times\ 0 \\ \hline 0 \end{array}$

10. $\begin{array}{r} 5 \\ \times\ 4 \\ \hline 20 \end{array}$

11. $\begin{array}{r} 2 \\ \times\ 6 \\ \hline 12 \end{array}$

12. $\begin{array}{r} 0 \\ \times\ 8 \\ \hline 0 \end{array}$

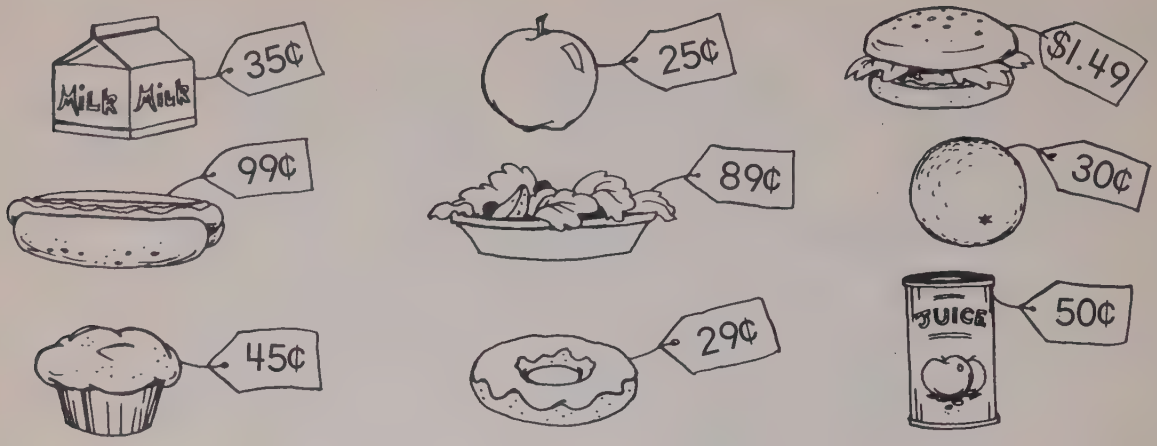
13. 4 × 3 = 12

14. 5 × 9 = 45

The children should verify that they are pressing the keys correctly by seeing whether or not their results are what they would have expected.

OFF

Lunch Math



Find the cost of each lunch.

Toni's

1 hamburger	$1.49
1 salad	$0.89
1 milk	$0.35
Total	$2.73

Barney's

2 hamburgers	$2.98
1 milk	$0.35
1 muffin	$0.45
Total	$3.78

The Gills'

3 hotdogs	$2.97
2 salads	$1.78
3 milks	$1.05
3 muffins	$1.35
2 apples	$0.50
1 orange	$0.30
Total	$7.95

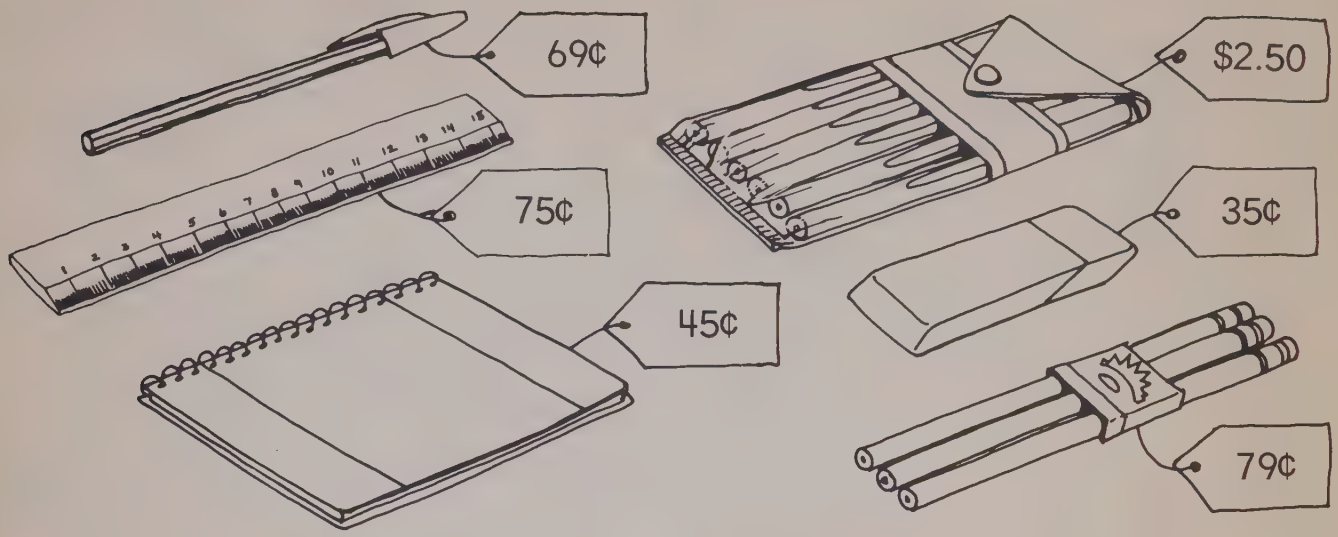
The Kovacs'

3 hamburgers	$4.47
2 hotdogs	$1.98
4 salads	$3.56
2 milks	$0.70
3 juices	$1.50
4 muffins	$1.80
1 apple	$0.25
Total	$14.26

The children should express amounts using a decimal point. Have the children examine the results of 2 × 0.25. The display shows 0.5. Because it is money, it should be written as 0.50.

 Objective: Determine when to add, subtract, or multiply; add, subtract, and multiply amounts of money, using a calculator.

School-Supplies Math



1. How much do 1 pen and 1 notebook cost?

   $1.14

2. How much more does 1 ruler cost than 1 notebook?

   $0.30

3. How much do 1 pack of colored pencils, 1 ruler, and 1 pen cost?

   $3.94

4. How much do 3 pens cost?

   $2.07

5. How much do 5 notebooks and 2 pens cost?

   $3.63

6. How much more do 3 pens cost than 1 pack of 3 pencils?

   $1.28

7. How much do 1 eraser 1 pack of 3 pencils, and 3 notebooks cost?

   $2.49

8. Can you buy 2 pens, 1 ruler, and 4 notebooks with $5.00?

   yes

Exercises 5, 6, 7, and 8 involve more than one operation. The children should show the steps involved.

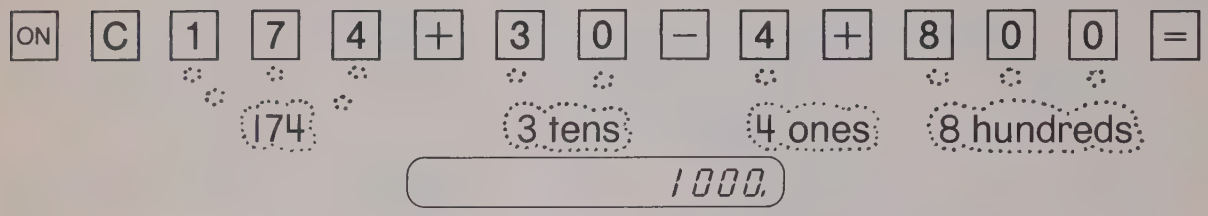
Place-Value Quiz

To enter 174

[+] 3 tens

[−] 4 ones

[+] 8 hundreds:



Complete.

1. Enter. 285

[+] 5 ones

[+] 1 ten

[+] 7 hundreds

[=] 1000

2. Enter. 751

[−] 5 tens

[+] 3 hundreds

[−] 1 one

[=] 1000

3. Enter. 416

[+] 6 hundreds

[−] 2 tens

[+] 4 ones

[=] 1000

4. Enter. 683

[−] 3 ones

[+] 4 hundreds

[−] 8 tens

[=] 1000

Complete these to give a result of 1000. Answers will vary. Examples given.

5. Enter. 578

[+] 2 ones

[+] 2 tens

[+] 4 hundreds

[=] 1000

6. Enter. 327

[−] 7 ones

[−] 2 tens

[+] 7 hundreds

[=] 1000

The example reviews translating 8 hundreds to 800, 3 tens to 30, and 4 ones to 4. In exercises 5 and 6, some children may need to press the [=] key after each step to determine the next step.

OFF

 Objective: Interpret place value for numbers to 9999; enter numbers to 9999, using their expanded form; write numbers to 9999 in expanded form.

Expanded Form

To enter 2354 using only the
[1], [0], [+], and [=] keys:

[ON]	[C]	0	[+]	1000	[=]	[=]				2000.
			[+]	100	[=]	[=]	[=]			2300.
			[+]	10	[=]	[=]	[=]	[=]	[=]	2350.
			[−]	1	[=]	[=]	[=]	[=]		2354.

2354 = 2000 + 300 + 50 + 4

Use only the [1], [0], [+], and [=] keys
to enter each number.
Then show the expanded form.

1. 64
60 + 4

2. 907
900 + 7

3. 1382
1000 + 300 + 80 + 2

4. 27
20 + 7

5. 686
600 + 80 + 6

6. 917
900 + 10 + 7

7. 816
800 + 10 + 6

8. 145
100 + 40 + 5

9. 2050
2000 + 50

10. 1315
1000 + 300 + 10 + 5

11. 2008
2000 + 8

12. 9514
9000 + 500 + 10 + 4

This method involves the addition constant. The number of times the [=] key is pressed is the number for the given place value.

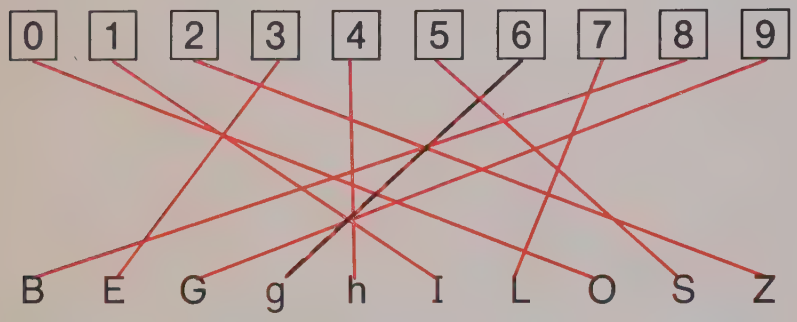
[OFF]

Calculator Words

Press each number key.
Turn your calculator upside down.
Print the letter you see.

ON	C	0	O	C	5	S
	C	1	I	C	6	g
	C	2	Z	C	7	L
	C	3	E	C	8	B
	C	4	h	C	9	G

Match.



Find each word.

1. Enter 34. hE
2. Enter 3507. LOSE
3. Enter 335. SEE
4. Enter 918. BIG
5. Enter 3704. hOLE
6. Enter 771. ILL
7. Enter 7105. SOIL
8. Enter 345. ShE
9. Enter 5508. BOSS
10. Enter 5537. LESS
11. Enter 3215. SIZE
12. Enter 379 919. GIGGLE

The children should give the letter that the display most resembles.

Number Names

Add or subtract.
Turn your calculator upside down.
Read the word.
Print the number name beside its picture.

1. 859 − 555 = 304

2. 9825 − 2087 = 7738

3. 757 − 419 = 338

4. 666 + 241 = 907

5. 528 + 465 = 993

6. 45 230 + 32 115 = 77 345

7. 987 − 83 = 904

8. 36 996 − 1 987 = 35 009

9. 1065 + 1980 = 3045

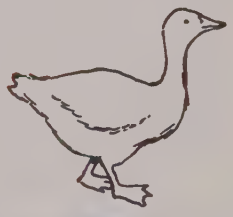
BEE

EGG

SHELL

BELL

LOG



GOOSE

HOG

HOE

SHOE

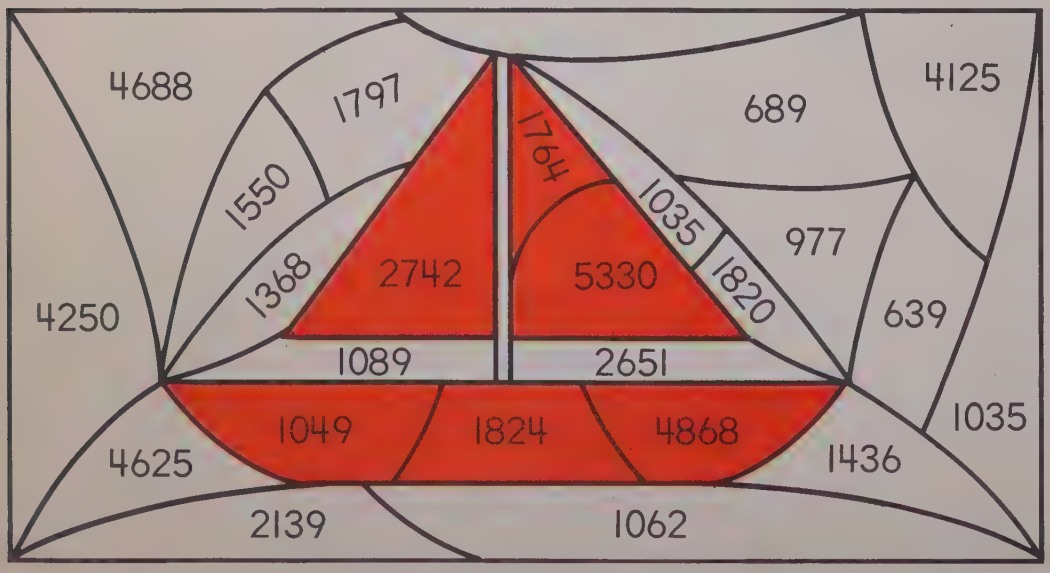
The letters identified on the preceding page should be used.

Comparing Numbers

Circle the greater number in each pair.
Then add the three circled numbers.

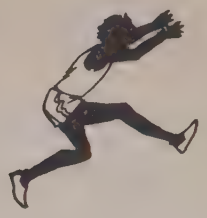
1.	(638)	(191)	202	1049
	368	119	(220)	
2.	99	1414	(307)	5330
	(909)	(4114)	37	
3.	(4104)	29	(555)	4868
	4041	(209)	505	
4.	13	97	(925)	1764
	(130)	(709)	529	
5.	218	1010	(820)	2742
	(821)	(1101)	208	
6.	309	714	(693)	1824
	(390)	(741)	39	

Color the shapes that have the same numbers as your sums.



Some children may find it helpful to print plus signs between the numbers and an equal sign at the end.

Adding and Subtracting Decimals



Jose jumped 2.35 m. Frank jumped 1.78 m.
How much farther did Jose jump than Frank?

To calculate 2.35 − 1.78:

ON C 2 . 3 5 − 1 . 7 8 =

2.35 1.78

0.57

Jose jumped 0.57 m farther.

Show the keys to press. Then add or subtract.

1. 7.2 + 9.1 **2.** 5.3 + 2.8 **3.** 7.6 − 2.9 **4.** 8.1 − 6.5

1.	C	7	.	2	+	9	.	1	=	16.3
2.	C	5	.	3	+	2	.	8	=	8.1
3.	C	7	.	6	−	2	.	9	=	4.7
4.	C	8	.	1	−	6	.	5	=	1.6

5. 6.92 − 3.48 **6.** 21.35 + 9.46

5. C 6 . 9 2 − 3 . 4 8 = 3.44

6. C 2 1 . 3 5 + 9 . 4 6 = 30.81

The children should verify that they are pressing the keys correctly by seeing whether or not their results are what they would have expected.

OFF

Name Objective: Compare decimal tenths and hundredths; add decimal tenths and hundredths, using a calculator.

Comparing Decimals

Circle the greater number in each pair.
Then add the circled numbers.

1.	(1.2) 1.02	(12.0) 1.20	1.02 (2.01)	15.21	C
2.	(3.3) 3.03	(33.3) 3.33	(3.03) 0.33	39.63	T
3.	4.9 (9.4)	(9.49) 4.99	(49.9) 9.49	68.79	N
4.	7.07 (7.7)	(7.70) 0.77	7.70 (70.7)	86.10	X
5.	5.5 (5.55)	(5.15) 1.51	5.51 (15.5)	26.20	L
6.	6.08 (8.06)	(68.0) 8.6	0.68 (0.8)	76.86	E

Print the letter below its number.

76.86	86.10	15.21	76.86	26.20	26.20	76.86	68.79	39.63
E	X	C	E	L	L	E	N	T

What did you spell? EXCELLENT

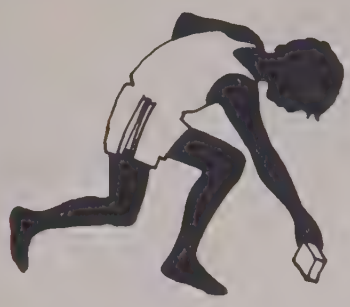
Some children may find it helpful to print plus signs between the numbers and an equal sign at the end.

Fitness Math

Circle the greatest and the least result for each event.
Then subtract the least from the greatest in each event.

Shuttle Run

(16.5 s)
14.9 s
13.8 s
15.6 s
(13.5 s)
14.6 s



3.0 A

Standing Long Jump

(1.02 m)
1.38 m
1.25 m
(1.46 m)
1.41 m
1.22 m

0.44 I

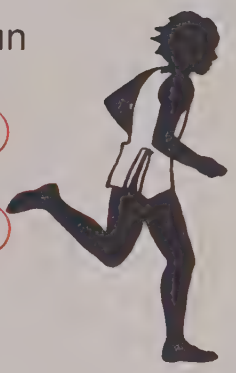
Flexed Arm Hang

17.8 s
26.2 s
11.0 s
30.5 s
(8.5 s)
(45.2 s)

36.7 F

50 m Run

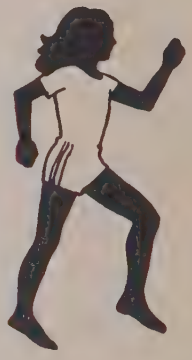
10.2 s
(12.2 s)
9.7 s
(8.9 s)
10.5 s
9.8 s



3.3 M

800 m Run

(5.62 min)
4.35 min
4.50 min
5.13 min
(4.03 min)
5.08 min



1.59 T

Print the letter below its number.

0.44		3.0	3.3		36.7	0.44	1.59
I		A	M		F	I	T

What did you spell? I AM FIT

The children may enjoy trying these fitness exercises and comparing their results with those given. (See *Canada Fitness Awards*, available from the Government of Canada, Fitness and Amateur Sport.)

Multiplying Two-Digit Numbers

Belinda counted 8 cases.
Each case holds 24 cans.
How many cans are there?

To calculate 24 × 8:

ON C 2 4 × 8 = 192.

24

There are 192 cans.

Show the keys to press.
Then multiply.

1. 92 × 7	C	9	2	X	7	=	644
2. 46 × 5	C	4	6	X	5	=	230
3. 75 × 4	C	7	5	X	4	=	300

Multiply.

4. 32 × 4 = 128 **5.** 56 × 8 = 448 **6.** 24 × 5 = 120

7. 49 × 6 = 294 **8.** 17 × 9 = 153 **9.** 68 × 3 = 204

10. 9 × 33 = 297 **11.** 15 × 8 = 120 **12.** 92 × 5 = 460

13. 83 × 7 = 581 **14.** 6 × 60 = 360 **15.** 9 × 16 = 144

The children should check the reasonableness of their results by estimating the products.

Patterns

Calculate only as many products as you need to find the pattern. Complete the pattern without using your calculator. Then check.

1.

$9 \times 4 =$ 36
$99 \times 4 =$ 396
$999 \times 4 =$ 3 996
$9\,999 \times 4 =$ 39 996
$99\,999 \times 4 =$ 399 996
$999\,999 \times 4 =$ 3 999 996

2.

$9 \times 6 =$ 54
$99 \times 6 =$ 594
$999 \times 6 =$ 5 994
$9\,999 \times 6 =$ 59 994
$99\,999 \times 6 =$ 599 994
$999\,999 \times 6 =$ 5 999 994

3.

$37 \times 3 =$ 111
$37 \times 6 =$ 222
$37 \times 9 =$ 333
$37 \times 12 =$ 444
$37 \times 15 =$ 555
$37 \times 18 =$ 666
$37 \times 21 =$ 777
$37 \times 24 =$ 888
$37 \times 27 =$ 999

4.

$91 \times 11 =$ 1001
$91 \times 22 =$ 2002
$91 \times 33 =$ 3003
$91 \times 44 =$ 4004
$91 \times 55 =$ 5005
$91 \times 66 =$ 6006
$91 \times 77 =$ 7007
$91 \times 88 =$ 8008
$91 \times 99 =$ 9009

5.

$91 \times 1 =$ 91
$91 \times 2 =$ 182
$91 \times 3 =$ 273
$91 \times 4 =$ 364
$91 \times 5 =$ 455
$91 \times 6 =$ 546
$91 \times 7 =$ 637
$91 \times 8 =$ 728
$91 \times 9 =$ 819

6.

$99 \times 1 =$ 99
$99 \times 2 =$ 198
$99 \times 3 =$ 297
$99 \times 4 =$ 396
$99 \times 5 =$ 495
$99 \times 6 =$ 594
$99 \times 7 =$ 693
$99 \times 8 =$ 792
$99 \times 9 =$ 891

Encourage the children to calculate only as many products as necessary to find each pattern. Some children may enjoy exploring whether or not their calculator has a multiplication constant. Calculators vary with respect to whether the first or second factor entered becomes the constant.

Dividing with Your Calculator

24 hockey cards are shared by 4 friends.

Complete.

24 − 4 = 20 Take 4 cards, one for each friend.

20 − 4 = 16 Take 4 more.

16 − 4 = 12 Take 4 more.

12 − 4 = 8 Take 4 more.

8 − 4 = 4 Take 4 more.

4 − 4 = 0 Take 4 more.

How many times were 4 cards taken? 6

24 can be divided by 4 6 times.

To calculate 24 ÷ 4:

ON C 2 4 ÷ 4 6.

Each friend receives 6 cards.

Show the keys to press.
Then divide.

1. 42 ÷ 7 C 4 2 ÷ 7 = 6

2. 72 ÷ 6 C 7 2 ÷ 6 = 9

Divide.

3. $2\overline{)18}$ 9

4. $5\overline{)45}$ 5

5. $8\overline{)64}$ 8

6. $4\overline{)28}$ 7

7. 63 ÷ 9 = 7

8. 15 ÷ 3 = 5

9. 48 ÷ 8 = 6

Repeated subtraction is used to introduce dividing. The children should verify that they are pressing the keys correctly by seeing whether or not their results are what they would have expected.

OFF

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